



6450-01-P

DEPARTMENT OF ENERGY

Amended Notice of Intent to Prepare an Environmental Impact Statement for Remediation of Area IV and the Northern Buffer Zone of the Santa Susana Field Laboratory and Conduct Public Scoping Meetings

AGENCY: Department of Energy.

ACTION: Amended notice of intent.

SUMMARY: The U.S. Department of Energy (DOE) is amending its 2008 notice of intent (NOI) to prepare an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA) for cleanup of Area IV, including the Energy Technology Engineering Center (ETEC), as well as the Northern Buffer Zone of the Santa Susana Field Laboratory (SSFL) (DOE/EIS-0402) in eastern Ventura County, California, approximately 29 miles north of downtown Los Angeles. (DOE's operations bordered the Northern Buffer Zone. DOE is responsible for soil cleanup in Area IV and the Northern Buffer Zone.) Since DOE's 2008 NOI, extensive studies of the site for radiological and chemical contamination have been ongoing and are nearing completion. DOE is proposing a revised scope for the EIS due to the 2010 Administrative Order on Consent (2010 AOC) that DOE and the California Department of Toxic Substances Control (DTSC) signed for soil cleanup, and due to information now available from site characterization. The scope of the EIS would continue to include groundwater remediation consistent with requirements in the 2007 Consent Order for Corrective Action (2007 Consent Order) issued by DTSC. This Amended NOI describes DOE's proposed action and includes cleanup concepts developed by the local community for remediation of SSFL Area IV and the Northern Buffer Zone. In the EIS, DOE will evaluate reasonable alternatives for disposition of

radiological facilities and support buildings, remediation of contaminated soil and groundwater, and disposal of all resulting waste at permitted facilities.

DOE is initiating a 30-day public scoping period, during which public scoping meetings are planned for Calabasas and Simi Valley, California. DOE invites comments from federal and state agencies, state and local governments, Tribal Nations, natural resource trustees, the general public, and other interested parties on the scope of the EIS.

DATES: The public scoping period will extend from the date of publication of this notice in the *Federal Register* through ***[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]***. DOE plans to hold public scoping meetings at the following dates, times, and locations.

- *Simi Valley, California:* Simi Valley City Council Chambers in City Hall, 2929 Tapo Canyon Road, Simi Valley, on February 27, from 6:30 p.m. to 9:30 p.m.; and
- *Agoura Hills/Calabasas, California:* Community Center, 27040 Malibu Hills Road, Calabasas, on March 1, from 9:30 a.m. to 12:30 p.m.

DOE will consider all comments received or postmarked by the end of the scoping period.

Comments submitted after that date will be considered to the extent practicable. DOE will give equal consideration to written comments and oral comments.

ADDRESSES: Written comments on the scope of the EIS should be sent to: Ms. Stephanie Jennings, NEPA Document Manager, U.S. Department of Energy, 4100 Guardian Street, Suite 160, Simi Valley, CA 93063 or by fax: (855) 658-8695. Comments may also be submitted by e-

mail to SSFL_DOE_EIS@emcbc.doe.gov (use “Scoping comments” for the subject), or on the ETEC website at <http://www.etc.energy.gov>.

FOR FURTHER INFORMATION CONTACT: To request further information about the EIS or about the public scoping activities, or to be placed on the EIS distribution list, use any of the methods listed under **ADDRESSES**.

For general information concerning the DOE NEPA process, contact Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, DC 20585-0119, e-mail to: AskNEPA@hq.doe.gov, telephone: (202) 586-4600, leave a message at (800) 472-2756, or fax: (202) 586-7031.

This Amended NOI will be available on the internet at: <http://energy.gov/nepa>. This Amended NOI and related information will also be available on the internet at: <http://www.etc.energy.gov>, select the “Characterization & Cleanup” link on the toolbar, and then the “Environmental Impact Statement” link.

Additional information about the SSFL Area IV is available in the following public reading rooms:

- *Simi Valley, California:* Simi Valley Library, 2969 Tapo Canyon Road, (805) 526-1735;
- *Woodland Hills, California:* Platt Branch Library, 23600 Victory Blvd., (818) 340-9386;
- *Northridge, California:* California State University Northridge Oviatt Library, 2nd Floor, Room 265, (818) 677-2832; and

- *Chatsworth, California:* State of California Department of Toxic Substances Control, Regional Records Center, 9211 Oakdale Avenue, (818) 717-6521 or -6522

SUPPLEMENTARY INFORMATION:

Background

Site History. Located on 2,859 acres in the hills between the San Fernando Valley and Simi Valley, CA, SSFL was established in 1947 by North American Aviation (NAA) for the development and testing of liquid propellant rocket engines, first for the U.S. Air Force and subsequently for the National Aeronautics and Space Administration (NASA). In 1955, NAA established the subdivision Atomics International for the purpose of conducting energy research and testing small nuclear reactors for the Atomic Energy Commission (AEC), a predecessor agency to DOE, and commercial clients in the western portion of SSFL, also known as Area IV. Atomics International merged into Rocketdyne in 1984. In 1996, the Boeing Company (Boeing) acquired part of Rocketdyne, and with it SSFL.

SSFL is divided into four administrative areas and two contiguous buffer zones north and south of the administrative areas. Area I consists of about 714 acres, including 672 acres that are owned and operated by Boeing and 42 acres that are owned by the Federal Government and administered by NASA. Area II consists of about 410 acres that are owned by the Federal Government and administered by NASA. Area III consists of about 120 acres that are owned and operated by Boeing. Area IV consists of about 290 acres that are owned by Boeing in which 90

acres have been leased by DOE and its predecessors for work described below. Boeing also owns contiguous buffer zone areas of 1,143 acres to the south (Southern Buffer Zone) and 182 acres to the north (Northern Buffer Zone). DOE has no responsibilities for the Southern Buffer Zone as it adjoins SSFL Areas I, II, and III. DOE does have responsibility for the cleanup of soils in the 290 acres of Area IV and in the 182-acre Northern Buffer Zone. DOE shares responsibilities for groundwater remediation as defined in the 2007 Consent Order. Not all of the energy research conducted in Area IV was performed for DOE. Boeing has responsibility for the decontamination and demolition of the buildings it owns.

Starting in the mid-1950s, the AEC funded nuclear energy research on a 90-acre parcel of SSFL Area IV leased from Atomics International. ETEC was established by the AEC on this parcel in the early 1960s as a “center of excellence” for liquid metals technology. Boeing and its predecessors operated ETEC on behalf of DOE. At ETEC, DOE also operated 10 small nuclear reactors built for various research activities. All SSFL reactor operations ended in 1980, and nuclear research work was completed in 1988. Cleanup of ETEC began in the 1960s and was undertaken as unnecessary facilities were decommissioned.

Operation of the research facilities and reactors resulted in localized radiological contamination of soil and groundwater, and the concrete containment that surrounded the reactors became radioactive. Leaks from liquid radioactive waste hold-up tanks contaminated surrounding soil. Releases of hazardous and radioactive wastes into leachfields contaminated groundwater. DOE has removed all nuclear material from Area IV, and all but two of its reactor buildings, and has

performed cleanup of radioactive building materials and soil to DOE standards established in the 1980s and 1990s.¹

Prior NEPA Review: In March 2003, DOE issued an *Environmental Assessment for Cleanup and Closure of the Energy Technology Engineering Center* (DOE/EA-1345). The purpose and need for agency action was based on a DOE determination in 1996 that ETEC was surplus to DOE's needs and that the site should be closed. Based on the results of the environmental assessment (EA), DOE determined that an EIS was not required and issued a finding of no significant impact (FONSI). DOE's FONSI was challenged, and the U.S. District Court for the Northern District of California's May 2, 2007, ruling in the case *Natural Resources Defense Council v. Department of Energy* (Slip Op. 2007 WL 2349288 (N.D. Cal. Aug. 15, 2007)) held that DOE's decision to issue a FONSI and conduct cleanup and closure on the basis of the EA was in violation of NEPA. The court enjoined DOE from transferring control of any portion of SSFL Area IV until DOE completes an EIS and issues a Record of Decision pursuant to NEPA.

In accordance with Council on Environmental Quality and DOE NEPA implementing regulations (40 CFR Parts 1500 – 1508 and 10 CFR Part 1021, respectively), DOE initiated this EIS in October 2007 by issuing an Advance NOI (72 FR 58834; October 17, 2007). Public comments received as a result of the publication of the Advance NOI aided in the preparation of the 2008 NOI announcing DOE's intent to prepare an EIS (73 FR 28437; May 16, 2008). DOE held scoping meetings in July 2008. A summary of comments received during the 2008 scoping

¹ Cleanup standards used during that time were based on an estimated exposure dose per DOE guidelines.

period is on the ETEC website at <http://www.etc.energy.gov>. DOE did not issue a draft EIS following issuance of the 2008 NOI.

The alternatives identified in the 2008 NOI were:

- Alternative 1: No Action – Cessation of all DOE management activities and oversight of SSFL Area IV
- Alternative 2: No further cleanup or disposition of buildings and no remediation of contaminated media at SSFL Area IV but DOE would continue environmental monitoring and maintain security of SSFL Area IV
- Alternative 3: On-site containment of buildings, wastes, and radiological and chemical contaminants at SSFL Area IV
- Alternative 4: Off-site disposal of SSFL Area IV materials
- Alternative 5: Combination of on-site disposal/off-site disposal for SSFL Area IV

The 2008 Alternatives 1 and 2 were no action baseline scenarios. DOE has determined that analysis of No Action Alternative 1 would not benefit decisionmaking and, thus, proposes not to analyze it in the EIS. DOE proposes that the No Action Alternative in the EIS be based on the 2008 No Action Alternative 2. For the Action Alternatives (Alternatives 3, 4, 5), DOE will continue to evaluate components of the alternatives, insofar as they are consistent with applicable requirements, and after consideration of scoping comments, will determine how they best fit among the range of reasonable alternatives to be analyzed in the EIS.

Recent History: DTSC issued the 2007 Consent Order to DOE, NASA, and Boeing (as respondents) pursuant to its authority over hazardous waste under the California Health and Safety Code section 25187. This 2007 Consent Order required the respondents to clean up all chemically-contaminated soils and groundwater at SSFL to risk-based levels.

Also in 2007, DOE received requests from DTSC and some members of the California congressional delegation to suspend the physical demolition and removal of the facilities still remaining at ETEC, except for those activities necessary to maintain the site in a safe and stable configuration until completion of the EIS. DOE has honored these requests and continued surveillance, maintenance, environmental monitoring, and soil and groundwater characterization activities.

In the Consolidated Appropriations Act, 2008 (Pub. L. 110-161), Congress, among other things, mandated that DOE use a portion of the funding for ETEC to enter into an interagency agreement with the U.S. Environmental Protection Agency (EPA) to conduct a joint comprehensive radioactive site characterization of Area IV and the Northern Buffer Zone.

Additionally, in 2009, EPA received \$38 million in American Recovery and Reinvestment Act funds from DOE to expand site characterization work. DOE slowed preparation of the EIS until the site characterization could be completed, nevertheless gathering information to support the EIS such as baseline data on traffic and noise. EPA conducted its background and on-site radionuclide investigation of Area IV and the Northern Buffer Zone from the summer of 2009 until the fall of 2012. EPA's final data report for the Area IV and Northern Buffer Zone

radiological study was issued in December 2012. EPA's final data report for the radiological study is available on the ETEC website at <http://www.etec.energy.gov>.

In December 2010, DOE and DTSC signed the 2010 AOC for soil cleanup.

(http://www.etec.energy.gov/Char_Cleanup/AOC.html). The 2010 AOC supersedes the 2007 Consent Order relative to soil cleanup and provides the process for DOE to complete soil characterization within Area IV and the Northern Buffer Zone. The 2010 AOC also describes the process for establishing soil cleanup standards for Area IV. The 2010 AOC stipulates that the soils contamination cleanup standard will be local background concentrations or analytical detection limits.² The AOC provides a preference for on-site treatment to minimize transportation of soils. The AOC specifies that soil cleanup be completed in 2017. DOE recently completed the AOC-required soil sampling, and its final data report for the Area IV/Northern Buffer Zone chemical study will be issued in 2014. The results of the EPA soil radiological characterization reports and the DOE chemical characterization results will be incorporated into the EIS environmental analyses.

In December 2012, EPA provided to DTSC its cleanup value recommendations to be included in the Look-Up Table for radionuclides, and DTSC released provisional radionuclide Look-Up Table values in January 2013. DOE expects that the radionuclide values will be finalized after a laboratory to test soil samples has been identified. In June 2013, DTSC provided Look-Up Table values for 125 of the most frequently observed chemicals at the site, out of over 400 chemicals; values for those remaining chemicals are expected to be forthcoming.

² The soil cleanup standards (action levels) are to be listed in a "Look-up Table" as not-to-exceed concentrations in the soil.

Preliminary results of DOE's soil chemical investigation conducted under the 2010 AOC and the radionuclide investigation conducted by EPA indicate that soil volumes potentially to be remediated could range from approximately 1 million to 1.7 million cubic yards of chemically contaminated soil, including approximately 82,000 cubic yards of radiologically contaminated soil. These estimates are based on established engineering estimating procedures using available Area IV soil sampling data and the site Geographic Information System (GIS) to estimate rough-order-of-magnitude soil volumes based on the Look-up Table values. These volume estimates assume expansion following excavation. The estimates do not include any reductions due to limiting the areas of cleanup for protection of biological species or archaeological resources that are described in the 2010 AOC, or any on-site soil treatment (e.g., phytoremediation and bioremediation). DOE's ongoing groundwater characterization of Area IV and the Northern Buffer Zone has identified two areas with solvent contamination, one area with tritium contamination, and one location with strontium-90 contamination.

Groundwater investigation and cleanup are still governed by the 2007 Consent Order (the 2010 AOC identifies the provisions of the 2007 Order that are still applicable and incorporates them by reference). The 2007 Consent Order and the 2010 AOC provide the option for DTSC to require additional work to be conducted outside of SSFL Area IV to assess air, soil, and water contamination, and to require remediation should an area of off-site contamination be demonstrated to be emanating from Area IV.

At this time, DTSC is preparing a program Environmental Impact Report (EIR), pursuant to the California Environmental Quality Act (CEQA), that will include cleanup actions for the entirety

of SSFL, including those to be conducted by Boeing, NASA, and DOE. DTSC initiated scoping for the CEQA EIR in December 2013 and extended the public comment period through February 10, 2014. Because DOE will be preparing its EIS concurrently, DTSC and DOE plan to share information in the development of both environmental documents.

Purpose and Need for Agency Action

DOE needs to complete remediation of SSFL Area IV and the Northern Buffer Zone to comply with applicable requirements for radiological and hazardous contaminants. These requirements include regulations, orders, and agreements, including the 2007 Consent Order, as applicable, and the 2010 AOC. To this end, DOE needs to remove the remaining DOE structures in Area IV of SSFL and clean up the affected environment in Area IV and the Northern Buffer Zone in a manner that is protective of the environment and the health and safety of the public and workers.

DOE Proposed Action

DOE proposes to demolish remaining DOE-owned buildings and debris and dispose of this waste off site. DOE also proposes to clean up Area IV and the Northern Buffer Zone. Soil cleanup would be performed based on soil concentrations listed in Look-Up Tables for chemicals and radionuclides. Where possible, DOE proposes to use on-site treatment of contaminated soils and natural attenuation³ to reduce volumes of contaminated soil prior to transport and disposal off site of any soils that cannot be otherwise treated and remain on site. In all remedial actions,

³ Natural attenuation takes advantage of organisms and physical properties in the soil to degrade contaminants.

steps to protect biological and archaeological (cultural) resources would be taken. Soil that cannot be treated on site would be transported off site to permitted disposal facilities based on the type of waste. Locations where soil excavation is performed would be backfilled, recontoured, and stabilized with new vegetation. In the EIS, DOE will analyze alternatives that can mitigate transportation impacts to the adjacent communities to the extent practicable (e.g., new roadway). DOE proposes to address groundwater contamination through a variety of mechanisms, including pump and treat technology, chemically enhanced degradation, and natural attenuation.

Alternatives

DOE is in the early stages of identifying the range of reasonable alternatives for analysis in the EIS. These alternatives will be developed based on current requirements, including the 2010 AOC, results from site characterization, public input received during alternative development workshops held by DOE in 2012 and public scoping comments.

Community-Developed Cleanup Concepts

Community members developed the cleanup concepts summarized below during the 2012 public workshops held by DOE. The concepts are similar in their focus on cleaning up and restoring Area IV and the Northern Buffer Zone to a level that allows use of the site as open space for wildlife or human enjoyment. Each concept calls for minimizing transportation impacts. Preferred use of native plants and measures to prevent spread of invasive, non-native plants are

also common components. The approaches to meeting these objectives are different among the concepts. DOE invites comments during this scoping period on these community-developed concepts, as well as other suggestions for how to proceed with cleanup of Area IV and the Northern Buffer Zone. Because the community-based concepts have common elements, they may be formulated into one or more action alternatives for analysis in the EIS.

Concept 1: Minimize Environmental Disturbance – The focus of this concept is cleaning up the environment in such a way as to minimize damage to the existing ecosystem. Cleanup would be approached in a holistic manner, looking to an end state such that Area IV could be integrated with the entirety of SSFL and the surrounding environs as potential national or state park and habitat linkage. Cleanup actions would be intended to minimize the removal of soil and disturbance of the local environment. Structures, except uncontaminated structures that could be repurposed, and roads, would be removed. Preference would be given to in situ and onsite treatment of contaminated soils, materials and groundwater, and to recycling. Building materials would need to be managed off site and would be disposed of or recycled as close to the site as possible to minimize transportation impacts and costs. Treated groundwater would be discharged on-site.

Concept 2: Risk-Based Prioritization – Under this concept, cleanup would be prioritized based on the toxicity of the contaminants to humans and biota, and the efficacy of cleanup methods. Schedule would not be a driver. A cost-benefit analysis may be conducted under this concept. Excavation would be minimized for both soil and groundwater, on-site treatment methods would be preferred, and cleanup levels would correlate to established EPA or California toxicity levels.

Tritium would be monitored and reduced through natural attenuation. The existing Groundwater Extraction and Treatment System would be expanded and groundwater would be removed and treated to prevent further contaminant migration. Transportation impacts would be minimized by managing truck routes and schedules, and using more efficient technologies such as hybrid engines and alternative fuels. Protection of endangered species and cultural resources would be emphasized. Backfilling, recontouring, and cleanup impacts for the Northern Buffer Zone, in particular, would be minimized. At transfer, the property would be open space.

Concept 3: Schedule- and Background-Driven Cleanup – The focus of this cleanup concept is meeting the AOC requirements, including the schedule. Cleanup would be to background levels, with the vision for final state as near natural as possible, for use as a wildlife corridor. All contaminated structures would be removed for disposal; uncontaminated foundations and pads would be removed if necessary to facilitate soil sampling after the buildings have been removed. On-site storage of demolition debris would be limited to 30 days. The preferential order of treatment to meet the AOC background standard by 2017 would be in-situ treatment, on-site treatment, and excavation. Tritium would be monitored and reduced through natural attenuation. Metals recycling would be prohibited. Innovative methods for moving materials off the site to minimize truck traffic on existing roadways and associated impacts, such as using a modular conveyor system, or improving an existing fire road are emphasized. Intermodal transportation using ships, rail, and trucks is proposed for transportation to off-site disposal facilities.

Concept 4: Green Cleanup – Under this concept, which emphasizes the use of green cleanup technologies, a point-based system would be developed to prioritize cleanup actions resulting in an open space land use end state. Various methods, activities, and components of each cleanup action would be given a point value based on factors such as cost, efficacy, degree of disturbance, and vendor location (specifically, preference for use of California-based companies). Preference (and therefore more favorable point values) would be given to eco-friendly technologies and locally based capabilities. Off-site disposal would be minimized by on-site sorting, reuse, and recycling, and special attention would be made to avoid contamination or recontamination of waste. Activities, such as truck movement scheduling, would be undertaken to maximize public safety during transportation. Road infrastructure would be evaluated and improved as needed. There are two variations under this concept for management of existing structures. Under the building preservation variation, structures with the potential for reuse would be retained. Under the building demolition variation, all manmade structures would be removed and disposed of without consideration for reuse.

No Action Alternative

Under the No Action Alternative, DOE would undertake no further soil or groundwater cleanup or disposition of its buildings and structures at SSFL Area IV and the Northern Buffer Zone. Removal of buildings and structures not owned by DOE, environmental monitoring, stormwater controls, and security would continue at SSFL Area IV and the Northern Buffer Zone. As required under NEPA, this alternative is to establish the baseline against which the environmental impacts from other analyzed alternatives can be compared.

Preliminary Identification of Environmental Issues

DOE has tentatively identified the following preliminary list of impact areas for evaluation in the EIS:

- Health and safety of the general population and workers from radiological and non-radiological releases, and cleanup operations;
- Transportation of radiological and non-radiological wastes to disposal sites and clean replacement soil to SSFL;
- Waste management;
- Potential accidents;
- Intentional destructive acts;
- Air resources, including air quality, climate change, and greenhouse gases;
- Noise;
- Surface water and groundwater;
- Geology and soils;
- Land use and visual resources;
- Socioeconomics;
- Biological resources (endangered and protected species, floodplain, and wetlands);
- Cultural, historic, and paleontological resources;
- Native American resources;
- Irretrievable and irreversible commitment of resources;

- Potential disproportionately high and adverse effects on low-income and minority populations (environmental justice); and
- Cumulative impacts.

This list is not intended to be all inclusive or to imply any predetermination of impacts. DOE invites interested parties to suggest specific issues, including possible mitigation measures, within these general categories, or other categories not included above, to be considered in the EIS.

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties. DOE is coordinating compliance with Section 106 with the preparation of this EIS. Also, DOE is initiating formal consultations with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act.

Public Participation and Scoping Process

DOE is issuing this Amended NOI to inform and solicit comments from federal and state agencies, state and local governments, Tribes, natural resource trustees, the general public, and other interested parties on the scope of the EIS (e.g., environmental issues, alternatives to be analyzed, and the potential environmental impacts related to DOE's potential activities within Area IV and the Northern Buffer Zone). DOE invites those agencies with jurisdiction by law or special expertise to be cooperating agencies. Invitations to be a cooperating agency have been

sent to the U.S. Army Corps of Engineers, EPA – Region 9, NASA, California DTSC, and the Santa Ynez Band of Chumash Indians.

This Amended NOI also announces scoping meetings to be held as described under “**DATES**”.

The scoping meetings will offer an opportunity for stakeholders to learn more about the proposed action from DOE officials and to provide comments on the proposed scope of the EIS. The first half hour of each meeting will consist of an open house, allowing members of the public to interact with DOE representatives and view materials on the scope of the EIS and known issues. After the open house, a presiding officer, designated by DOE, will announce procedures necessary for the conduct of the meeting. DOE officials will provide a brief presentation explaining DOE’s process for identifying reasonable alternatives and potential environmental impacts to be analyzed in the EIS. Following the presentation, the public will be given the opportunity to provide comments orally. A court reporter will be present to transcribe comments. The presiding officer will establish the order of the speakers, and will ensure that everyone who wishes to speak has a chance to do so. DOE may need to limit speakers to three to five minutes initially, but will provide additional opportunities if time allows. DOE is especially interested in learning from the public any issues or alternatives that should be considered. Comment cards will also be available for those who would prefer to submit written comments. Persons who wish to speak may sign up to speak before each meeting at the reception desk.

Next Steps

DOE expects to issue the Draft EIS in late 2014. DOE will hold a 45-day public comment period beginning with the publication of the EPA's Notice of Availability (NOA) of the Draft EIS in the *Federal Register* and will hold at least one public hearing. DOE will separately announce, in the *Federal Register* and local media, information on the public hearing(s) schedule and location(s). Comments on the Draft EIS will be considered and addressed in the Final EIS, which DOE anticipates issuing in fall of 2015. DOE will issue a Record of Decision no sooner than 30 days after EPA's NOA of the Final EIS in the *Federal Register*.

Issued in Washington, DC on February 3, 2014.

David Huizenga,
Senior Advisor
for Environmental Management.

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